![EnOcean logo]

Wireless Transceiver Gateway

TCM 515

The TCM 515 wireless transceiver gateway enables the realization of actuators, controllers or gateways for systems communicating based on the EnOcean radio standard.

TCM 515 provides a highly integrated solution in a small form factor including the required functionality for encryption, decryption and authentication of secure telegrams without the need for external components.

TCM 515 receives radio telegrams based on an external antenna connected via the host PCB. It can filter, decrypt and authenticate these telegrams before forwarding them to an externally connected host processor or host PC via a serial interface (UART).

The serial interface operates according to EnOcean ESP3 standard with the option to use higher interface speeds (TURBO mode) to reduce latencies.

ESP3 messages received from the external host will be encrypted and authenticated as required and then transmitted as EnOcean radio telegrams.

Ordering Information

TYPE **TCM 515**	ORDERING CODE **S3003-K515**

Features overview

Antenna	50 Ohm antenna (connected via host PCB)
Supported Radio Frequencies	868.3 MHz ASK
Data Rate	125 kbps
Receiver Sensitivity (typ, at 25°C) (See Note 1)	-92 dBm
Maximum Input Power (typ, at 25°C) (See Note 1)	-17 dBm (Product Revision DC) -23 dBm (Product Revision DA, DB)
Receiver Blocking Performance	Class 2 according to EN 300 220-1
Radiated RF Immunity	3 V / m according to EN 301 489-3
Transmit Power (typ, at 25°C)	868.3 MHz ASK: +10 dBm
Supply Voltage	2.0V … 3.6V
Supply Current RX/TX Mode (at 2.0V)	25 mA
Supply Current Sleep Mode (at 2.0V)	0.05 mA
Serial Host Interface	UART according to ESP3 Standard (with TURBO option)
Module Dimensions	19.0 mm x 14.7 mm x 3.0 mm (all +- 0.3 mm)
Operating Temperature	-40°C … +85°C

Note 1: Sensitivity and Maximum Input Power figures are based on 0.1% telegram error rate for the combination of 3 received sub-telegrams

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